Westside Purple Line Extension Section 1 Project



WESTSIDE PURPLE LINE EXTENSION SECTION 1 PROJECT

MONTHLY PROJECT STATUS REPORT

THE PREPARATION OF THIS DOCUMENT HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION (FTA).

TABLE OF CONTENTS

	Page No.
Project Summary	1
Project Overview & Status	2-4
Management Issues	5
Project Alignment by Sections	6
Project Alignment Section 1	7
Base Project Scope	8-10
Project Status	
Project Schedule	
o Key Milestones Six-Month Look Ahead	11
o Project Summary Schedule	12
o Schedule Measurements	13
o Overall Construction Progress Curve	14
Major Equipment Delivery	15
o Design-Builder's (C1045) Long Lead Item List	16
o Critical Path Narrative	17
o Project Schedule Contingency Drawdown	18
o Project Schedule Contingency Drawdown Analysis	18
Project Cost	
o Project Cost	19
o Project Cost Analysis	19
o Project Cost Contingency Drawdown	20
o Project Cost Contingency Drawdown Analysis	20
o Disadvantaged Business Enterprise (DBE)	21
o Project Labor Agreements (PLA) Status	21
o Summary of Contract Modifications	22
Financial/Grant	
o Financial/Grant	23
o Status of Funding	23
Staffing	
o Total Project Staffing	24
o Metro Staffing	25

TABLE OF CONTENTS (Continued)

	Page No.
Construction Management Support Services Consultant	25
Engineering Management Services Consultant	26
Real Estate	27
Quality Assurance	28
Environmental	29
Construction Relations	30
Creative Services	30
Safety & Security	31
Third Party Agreement & Status	32
Advanced Utility Relocation Status	33
Peak Hour and Nighttime Construction Variances	34
Chronology of Events	35-36
Construction Contracts	
o Contract C1045 Status	37
o Contract C1056 Status	38
o Contract C1078 Status	39
Construction Photographs	40-41
Appendices	
Cost and Budget Terminology	42
List of Acronyms	43-46

Westside Purple Line Extension Section 1 Project Monthly Project Status Report

PROJECT SUMMARY

LOCATION: DESIGN CONSULTANT:	Los Angeles Parsons / Bri	-		CONSTRUCTION MANAGE CONTRACTOR: Skanska			,			
Wilshire/La Brea Station Underdeck Excavation				WORK COMPLETED PAST MONTH						
				- C1045 Reach 1 tunnel ji - C1045 Wilshire/La Brea - C1045 Wilshire/La Brea - C1045 Wilshire/La Brea - C1045 Wilshire/Fairfax S - C1045 Wilshire/La Brea - C1045 Localized dewate - Wilshire/La Brea Station	Station excave tie-back and s water treatme Station south s utility relocation ring, power ins	ation continue strut installatio nt system inst side (Stage 2) on and hanging stallation to de	s in continues tallation continues pile installation continues g continues ewatering wells continues			
EXPENDITURE STATUS (\$ In Millions)				SCHEDULE ASSESSME	NT					
ACTIVITIES	CURRENT BUDGET	EXPENDED AMOUNT	PERCENT EXPENDED	MAJOR SCHEDULE ACTIVITIES	PRIOR PLAN	CURRENT PLAN	VARIANCE WEEKS			
DESIGN	\$159.2	\$140.7	88.4%	Environmental FEIS / FEIR	N/A	05/31/12	Complete			
RIGHT-OF-WAY	\$175.6	\$168.6	96.0%	Design	!					
CONSTRUCTION	\$1,740.3	\$484.0	27.8%	PE Notice to Proceed Final Design complete	N/A 03/22/17	01/12/11	Complete 0			
OTHER	\$1,079.3	\$126.5	11.7%	Right-of-Way	00/22/17	00/22/11	, and the second			
TOTAL	\$3,154.4	\$919.8	29.2%	All parcels available*	12/31/15	12/31/15	0			
Current Budget includes Envir	onmental/Plannir	ig and Finance	Costs.							
			-	Construction - Main Des						
AREAS OF CONCERN				Notice to Proceed	01/12/15	01/12/15	Complete			
			-	Construction complete * Parcels related to main D/E	11/08/23 3 Contract C1	11/08/23 045	0			
ROW ACQUISITION	PLAN	AVAILABLE	REMAINING	CRITICAL ACTIVITIES /	3 MONTH LO	OK AHEAD				
PERMANENT PARCELS	15	14	1	- C1045 DU #3 Wilshire/F			malata			
TEMPORARY PARCELS	4	4	0	- C1045 DU #4 Wilshire/La Cienega Station – AFC complete - C1045 DU #6 Systems – AFC complete - C1045 Wilshire/La Brea Station excavation continues						
TOTAL PARCELS	19	18	1	- C1045 Wilshire/La Brea install dewatering discharge line - C1045 Wilshire/Fairfax pile installation completes - C1045 Wilshire/La Cienega SOE pile installation to begin - C1078 Building 85% design submittal completes - AT&T relocations to complete at Wilshire/La Cienega						

Westside Purple Line Extension Section 1 Project Monthly Project Status Report

PROJECT OVERVIEW & STATUS

Section 1 of the Westside Purple Line Extension Project is the first of three sections to be designed and constructed as part of the Los Angeles County Metropolitan Transportation Authority (LACMTA) Measure R Program. The program was approved by Los Angeles County voters in November 2008 and provides a half-cent sales tax to finance new transportation projects. In April 2012, the three sections of the Project were environmentally cleared and adopted by LACMTA Board of Directors.

Section 1 will extend the existing Purple Line by 3.92 miles beginning at the Wilshire/Western Station. From this station, the twin tunnel alignment will travel westerly within the existing Wilshire Boulevard right-of-way. Stations will be located at the intersections of Wilshire/La Brea, Wilshire/Fairfax, and Wilshire/La Cienega. All three of the station boxes will be located within the Wilshire Boulevard right-of-way with station portals extending to off-street entrances. Two of the stations, Wilshire/La Brea and Wilshire/Fairfax are within the jurisdiction of the City of Los Angeles. The Wilshire/La Cienega Station is within the City of Beverly Hills jurisdiction.

Design

The Engineering Management Services (EMS) team continues to provide design support to the Design/Build Contract, and the Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building 61S Contract.

For the Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building 61S Contract (C1078), support to Metro continues with responding to RFI's and submittals and design updates. "Over-the-shoulder" meetings have occurred to further review design comments on two 100% advanced partial design unit packages, utility relocation services and the building foundation.

The team continues to attend design task force meetings with Metro and the C1045 Contractor for Tunnels, Stations, Trackwork, Systems and Systems Integration Testing in preparation for the design development and reviews. Support continues in the review of final design submittals, responding to RFI's, and assisting in preparation of change notices.

The C1045 Contractor, Skanska, Traylor and Shea (STS), and their final design team, Parsons Transportation Group (PTG), have identified the design work into six distinct design units. They are:

- 1. Design Unit 1 Wilshire/Western Interface Chamber (Shaft)
- 2. Design Unit 2 Wilshire/La Brea Station
- 3. Design Unit 3 Wilshire/Fairfax Station
- 4. Design Unit 4 Wilshire/La Cienega Station
- 5. Design Unit 5 Tunnels
- 6. Design Unit 6 Systems/Traffic/Trackwork

Each design unit package will be submitted and evaluated at each of the following phases; 60%, 85%, 100%, Approved for Construction (AFC) and Issued for Construction (IFC). If required, critical design units can be advanced as Advanced Partial Design Units (APDU's) to support ongoing construction activities.

Westside Purple Line Extension Section 1 Project Monthly Project Status Report

Design activities are well underway with the involvement of every discipline and design task force meetings have occurred weekly related to each design unit.

"Over-the-shoulder" design reviews and design comment resolution meetings are occurring with STS, PTG, Metro and the EMS team prior to each major design submittal. Monthly Metro Fire/Life/Safety meetings are occurring.

The status of the design submittals are as follows:

Design Unit	Percentage	Submittal Date
DU# 1 - Western	AFC	10/27/2016
DU# 2 - La Brea	AFC	12/5/2016
DU# 3 - Fairfax	AFC	1/27/2017
DU# 4 - La Cienega	AFC	3/31/2017
DU# 5 - Tunnels	AFC	11/2/2016
DU# 6 - Systems	AFC	3/7/2017

The Wilshire/Fairfax Station AFC package was reviewed and verification is ongoing. The final AFC package is expected next period.

Draft comments on the 100% design package for the Wilshire/La Cienega Station were submitted to STS and comment resolution meetings are ongoing. The Support of Excavation (SOE) design package, including building assessment reports, contingency plan and the instrumentation plan, reside with the City of Beverly Hills for their concurrence.

Comment resolutions meetings are continuing for radio, communications, fire alarm, electrical and mechanical systems.

STS is continuing with the required contractual submittals.

Major Contract Procurement

All contracts for the Project have been awarded.

Construction

On August 5, 2016, the C1056 contractor achieved substantial completion prior to the contractual substantial completion date of December 8, 2016. Remaining punch list items were completed in November 2016. *Contract closeout is nearing completion.*

Southern California Edison crews began the cable pulling and splicing work at Wilshire/La Cienega Station on August 4, 2016. This work was completed on December 20, 2016. AT&T work within the same location is scheduled to complete in February 2017. This will complete all AUR work at this location, prior to giving full access to the C1045 Design/Build contractor to construct the Wilshire/La Cienega Station.

The C1045 contractor began pile installation for the Wilshire/La Brea Station in mid-December 2015. The contractor had focused his efforts on the north side of the station, before making the traffic control switch to begin pile installation on the south side of Wilshire Boulevard. The traffic control switch to the south side occurred on the weekend of April 15, 2016 and pile installation began on May 4, 2016. The installation of the remaining two piles at this station location was completed on August 28, 2016.

Weekend closures began on June 10, 2016 for the installation of deck beams and concrete deck panels for the Wilshire/La Brea Station. This work was completed on October 17, 2016, six weeks ahead of schedule. Station excavation began on October 12, 2016 is continuing with a planned completion in December 2017. The hanging and supporting of utilities under the concrete deck panels are anticipated to complete in March 2017.

Traffic reconfiguration work began in early July 2016 at the Wilshire/Fairfax Station site in preparation of station pile installation. Pile installation began on the north side of Wilshire Boulevard on August 24, 2016. The traffic control switch to the south side of Wilshire Boulevard occurred on November 19, 2016. Pile operations on the south side of Wilshire Boulevard began on December 5, 2016. *Pile installation is planned to complete next period.*

Building demolition at the Wilshire/La Cienega Station site has been completed. Beverly Hills City Council approved the permit for pre-piling and geotechnical instrumentation activities on December 20, 2016. *Installation of the soundwalls for the construction staging areas began this period.*

Approval of the Memorandum of Agreement (MOA) for the construction of the Wilshire/La Cienega Station by the Beverly Hills City Council is scheduled for February 21, 2017. Approval by the Metro Board is scheduled for February 23, 2017.

The C1045 contractor has access to all properties to construct the Project.

The manufacturing of the two TBMs by Herrenknecht Tunneling Systems USA, Inc. is underway. Delivery is expected in late 2017 to support the start of tunneling from Wilshire/La Brea to Wilshire/Western (Reach 1) in 2018.

Soil excavation, backfill and compaction activities continue at the Division 20 Maintenance-of-Way and Non-revenue Vehicle Building 61S site. Full access to the site for the C1078 contractor to begin construction is scheduled for the first quarter of 2017.

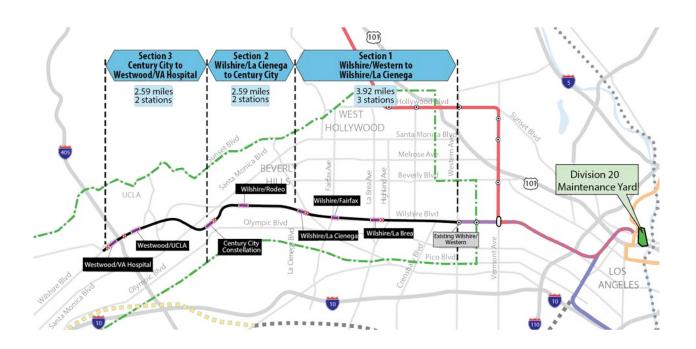
Westside Purple Line Extension Section 1 Project Monthly Project Status Report

January 2017

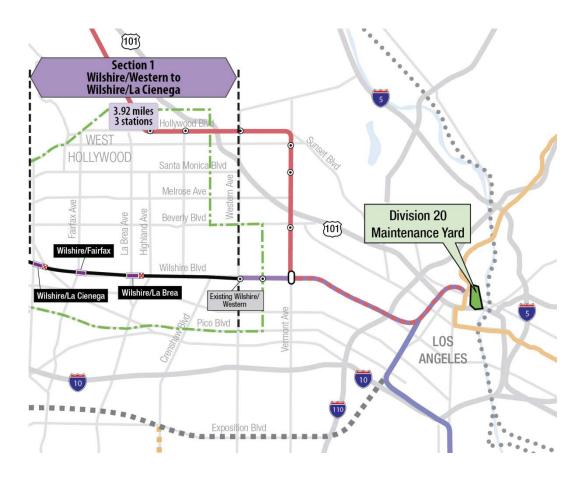
MANAGEMENT ISSUES

No Management Issues this period.

PROJECT ALIGNMENT by SECTIONS



PROJECT ALIGNMENT SECTION 1



BASE PROJECT SCOPE

Section 1 of the Westside Purple Line Extension Project is the first of three sections to be designed and constructed as part of the Los Angeles County Metropolitan Transportation Authority (LACMTA) Measure R Program. The program was approved by Los Angeles County voters in November 2008 and provides a half-cent sales tax to finance new transportation projects. In April 2012, the three sections of the Project were environmentally cleared and adopted by LACMTA Board of Directors.

Section 1 will extend the existing Purple Line by 3.92 miles beginning at the Wilshire/Western Station. From this station, the twin tunnel alignment will travel westerly within the existing Wilshire Boulevard right-of-way. Stations will be located at the intersections of Wilshire/La Brea, Wilshire/Fairfax, and Wilshire/La Cienega. All three of the station boxes will be located within the Wilshire Boulevard right-of-way with station portals extending to off-street entrances. Two of the stations, Wilshire/La Brea and Wilshire/Fairfax are within the jurisdiction of the City of Los Angeles. The Wilshire/La Cienega Station is within the City of Beverly Hills jurisdiction.

The Wilshire/La Brea Station box will be located under the center of Wilshire Boulevard in between Detroit Street and Orange Drive. A double crossover will be located east of the station box. The station entrance will be on the northwest corner of Wilshire Boulevard and La Brea Avenue.

The Wilshire/Fairfax Station box will be located under the center of Wilshire Boulevard west of Fairfax Avenue to west of Ogden Drive. The station entrance will be on the southeast corner of Wilshire Boulevard and Orange Grove Avenue.

The Wilshire/La Cienega Station box will be located under the center of Wilshire Boulevard immediately east of La Cienega Boulevard. A double crossover will be located east of the station box. The station entrance will be on the northeast corner of Wilshire Boulevard and La Cienega Boulevard. Since the station will be the terminus station for Section 1, tail tracks will be located west of the station box.

Contract C1034 – Wilshire/Fairfax Exploratory Shaft

Metro constructed an exploratory shaft to observe ground conditions prior to the award of Contract C1045. The location of the exploratory shaft was adjacent to the future Wilshire/Fairfax Station. The construction of the shaft included furnishing and installing monitoring instruments, ventilation, and record and report instrumentation data during the excavation of the shaft. After construction of the shaft, the shaft was maintained for an observation time period. Afterwards, the shaft was dismantled and the site backfilled in a condition acceptable to the property owner. The contract was substantially completed on October 31, 2014.

<u>Contract C1048 – Wilshire/La Brea Advanced Utility Relocations</u>

The work scope of this contract included the relocation of existing LADWP power, water utilities and a sewer line within the construction limits of the Wilshire/La Brea Station. The contractor was responsible for working in streets, procuring materials, and coordinating with the utility owner. The contractor constructed the new facilities in accordance with the utility plans and specifications, provided traffic control, restored streets, and supported utility crews installing cabling and during cut-over of the existing utilities. The contract was substantially completed on October 27, 2014.

Contract C1055 – Wilshire/Fairfax Advanced Utility Relocations

The work scope of this contract included the relocation of existing LADWP power and water utilities within the construction limits of the Wilshire/Fairfax Station. The contractor was responsible for working in streets, procuring materials, and coordinating with the utility owner. The contractor constructed the new facilities in accordance with utility plans and specifications, provided traffic control, restored streets, and supported utility crews installing cabling and during cut-over of the existing utilities. The contract was substantially completed on October 7, 2015.

Contract C1056 - Wilshire/La Cienega Advanced Utility Relocations

The work scope of this contract included the relocation of existing City of Beverly Hills water, storm drain and sewer utilities within the construction limits of the Wilshire/La Cienega Station. The contractor was responsible for working in streets, procuring materials, and coordinating with the utility owner. The contractor constructed the new facilities in accordance with utility plans and specifications, provided traffic control, restored streets, and supported utility crews during cut-over of the existing utilities. The contract was substantially completed on August 5, 2016.

<u>Contract C1045 - Tunnels, Stations, Trackwork, Systems and Systems Integration</u> <u>Testing</u>

The procurement of this contract utilizes a two-step approach with the submittal of qualification statements through a Request for Qualification (RFQ) process, prequalification of qualified proposers followed by the release of a Request for Proposals (RFP) soliciting technical and price proposals with an option at Metro's discretion for Best and Final Offers (BAFO).

The Design/Build contract provides for final design and construction of the infrastructure along the 3.92 mile alignment. Contract scope includes demolition and removal of structures and clearing sites to facilitate construction operations. The structures to be constructed include twin bored tunnels, complete with cross-passages and walkways, including all mechanical, electrical and finish work. A retrieval shaft will be constructed to the west of the existing Wilshire/Western Station for extraction of the tunnel boring machines. Three underground stations are to be constructed, two with double-crossovers, and the terminus station to include tail tracks. Each station has a single entrance plaza with stairs, escalators and elevators which meet ADA requirements. The scope of work includes all architectural finishes, mechanical, electrical, systems and equipment including train control, traction power, communications, trackwork and the system tie-in to the existing Metro Purple Line, testing and commissioning.

Contract C1078 – Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building 61S

The Design/Build contract provides for final design and construction of a new Maintenance-Of-Way (MOW) stores and Non-Revenue Vehicle (NRV) building at the south end of the existing Division 20 Yard (Location 61S). The displacement of the existing MOW stores building and NRV facility are due to the proposed turn-back facility site in the yard.

BASE PROJECT SCOPE (Continued)

Metro Furnished Equipment

Metro will procure separate contracts to provide the 34 Heavy Rail Vehicles (HRV) and the Universal Fare System (UFS) necessary to operate the extension to the Purple Line. The scope of the HRV contract includes design, manufacturing, testing and delivery of the vehicles. The scope of the UFS contract includes design, fabrication and installation of equipment at the three stations and system testing.

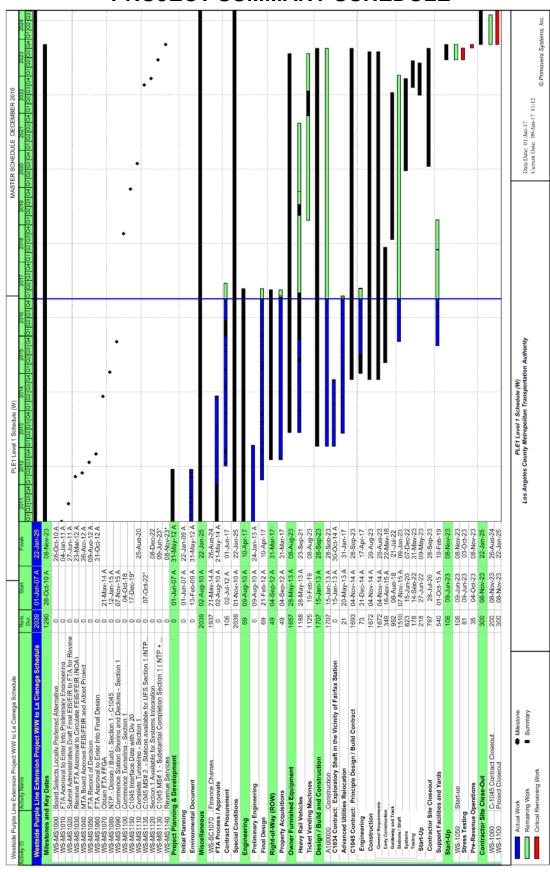
Start Up

The commencement of pre-revenue operations will be determined by Metro. Generally, all systems integration testing will have been completed and passed. All testing will be required to include and pass a "stress test" of maximum operational service levels to be acceptable. Pre-Revenue Operations include train runs, especially those involving multiple trains, on the integrated and fully operational extension; rehearsal of expected revenue operations scenarios; as well as abnormal and emergency scenarios in which random combinations of system interactions are tested; equipment "burned-in"; and training of Metro personnel who will eventually operate and maintain the extension and for emergency services personnel. Activities occurring during Pre-Revenue Operations are carried out by a designated Metro Project Rail Activation Group.

KEY MILESTONES SIX-MONTH LOOK AHEAD

	Milestone						
	Date	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17
C1045 Wilshire/La Cienega Stage 1 Shift Traffic Control Switch (South)	02/04/17						
C1045 Wilshire/Fairfax SOE Pile Installation Complete	02/09/17						
C1045 Wilshire/Fairfax Decking Begins							
C1045 Wilshire/La Brea Under Deck (Level B) Excavation Begins	02/21/17						
C1045 Wilshire/Fairfax Under Deck Excavation Begins	02/27/17						
C1045 Wilshire/La Cienega SOE Pile Installation Begins	03/07/17						
C1045 Final Design Units Complete	04/10/17						
C1045 Wilshire/La Brea Underdeck (Level C) Excavation Begins	04/27/17						
C1045 Wilshire Complete Reach 1 Jet Grouting Cross Passages	05/27/17						
C1045 Wilshire/La Brea Muck Shafts Tie-Backs Complete	06/14/17						
C1045 Wilshire/La Cienega Stage 2 Traffic Switch to North Side	07/05/17						
◆ MTA Staff MTA Board Action	FTA (Federal	Transit Adr	ministration)			
Other Agencies Contractors							

PROJECT SUMMARY SCHEDULE

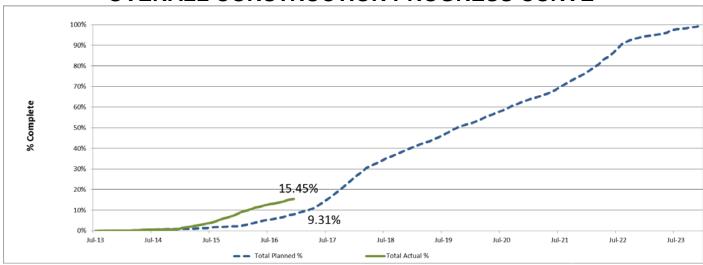


SCHEDULE MEASUREMENTS

	Status	Change from Last Period	Comment
Forecast Revenue Service	11/8/2023	None	
FFGA Revenue Service	10/31/2024	None	
Final Design Progress:			
Contract C1045	94.54%	1.53%	
Contract C1078	54.99%	1.24%	
Construction Contracts Progre	ss*:		
Contract C1048	100.00%	0.00%	Completed on schedule
Contract C1045	13.04%	0.49%	
Contract C1055	100.00%	0.00%	Completed on schedule
Contract C1056	100.00%	0.00%	Substantial completion was achieved on August 5, 2016, four months prior to the contractual date of December 8, 2016. Contract closeout is nearing completion.
Contract C1078	10.74%	0.00%	No change this period due to executed contract change order increasing contract value.

^{*}Note: Physical completion assessment reflects work completed and work in progress.

OVERALL CONSTRUCTION PROGRESS CURVE



The actual overall construction progress is 15.45% versus a planned of 9.31% through January 2017. The progress curves represent a composite percentage for the physical progress of work performed to complete the Project's construction contracts, including the major Design-Build (C1045), the three Advanced Utility Relocations (C1048, C1055 & C1056), and the Division 20 MOW & NRV Building 61S (C1078).

The physical progress percentage excludes non-construction items such as contractor's design and construction mobilization costs and all general requirement costs not tied specifically to a construction work effort.

Westside Purple Line Extension Section 1 Project Monthly Project Status Report

MAJOR EQUIPMENT DELIVERY

	Initial Procurement	Submittal	Delivery	Installation
Tunnel Boring Machine	1/29/16	5/30/16	7/29/17	4/19/18
Deliver to Site - Station HVAC System	8/13/18	1/21/19	4/21/19	6/18/20
Deliver to Site - Ventilation Fans	2/16/18	3/17/19	6/15/19	8/3/20
Deliver to Site - Elevators	8/2/18	10/1/18	8/3/19	7/17/20
Deliver to Site - Escalalators	11/30/18	1/29/19	10/1/19	4/19/21
Heavy Rail Vehicles	7/16/15	3/1/19	8/1/21	1/1/22
Ticket Vending Machines	2/15/19	10/8/21	9/8/21	9/8/22

Westside Purple Line Extension Section 1 Project Monthly Project Status Report

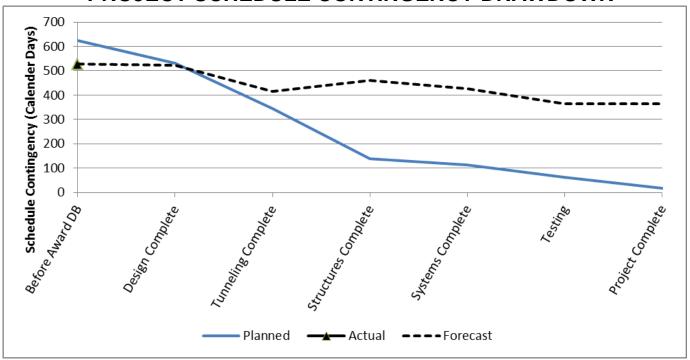
DESIGN BUILDER'S (C1045) LONG LEAD ITEM LIST

Item	Initial Procurement	Approved Submittal	Delivery	Installation Date
Procure / Deliver Fiber Optic Cable	2-Sep-16	21-Aug-16	19-Nov-16	8-Oct-20
Procure / Deliver Innerduct	2-Sep-16	21-Aug-16	19-Nov-16	5-Aug-20
Procure / Deliver Radio Cable	21-Aug-16	11-Aug-16	9-Nov-16	15-Sep-20
SCADA: Procure / Deliver Devices	21-Aug-16	6-Aug-16	4-Nov-16	21-May-21
Procure / Deliver SCADA Cable	21-Aug-16	6-Aug-16	4-Nov-16	5-Aug-20
Procure / Deliver TPS Bonding Cable Procure / Deliver Traction Power Cable	23-Mar-17 23-Mar-17	19-Apr-17 19-Apr-17	18-Jul-17 18-Jul-17	8-Oct-21 2-Sep-20
TPS: Procure/Deliver BLS Equipment & Devices	23-Mar-17	19-Apr-17	18-Jul-17	26-Aug-20
Mfgr/Assemble/Wire DC Rectifier/Transformer - La Cienega TPSS	27-Jun-17	19-Jul-17	17-Oct-17	2-Feb-22
Mfgr/Assemble/Wire HV Metering Switchgear - La Cienega TPSS	27-Jun-17	19-Jul-17	17-Oct-17	2-Feb-22
Mfgr/Assemble/Wire DC Switches - Fairfax GBS	18-Oct-17	10-Nov-17	8-Feb-18	30-Jul-21
Mfgr/Assemble/Wire HV Metering Switchgear - Fairfax GBS	18-Oct-17	10-Nov-17	8-Feb-18	30-Jul-21
Mfgr/Assemble/Wire DC Rectifier/Transformer - La Brea TPSS	17-Oct-17	16-Nov-17	14-Feb-18 12-Jun-18	18-Nov-20
Mfgr/Assemble/Wire HV Metering Switchgear - La Brea TPSS CCTV: Assemble/Rack & Stack/Factory Test COM Equipment for Western	12-Feb-18 26-Jan-17	14-Mar-18 10-Nov-16	8-Feb-17	18-Nov-20 2-Mar-22
CCTV: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	26-Jan-17	1-Mar-17	30-May-17	22-Feb-22
CCTV: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	17-May-17	29-Jun-17	27-Sep-17	8-Oct-21
CCTV: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	28-Sep-17	28-Oct-17	26-Jan-18	26-Feb-22
CTS: Assemble/Rack & Stack/Factory Test COM Equipment for Western	14-Jul-16	13-Aug-16	11-Nov-16	12-Mar-22
CTS: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	12-Nov-16	11-Dec-16	11-Mar-17	23-Sep-21
CTS: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	14-Mar-17	15-Apr-17	14-Jul-17	10-Jul-21
CTS: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	15-Jul-17	16-Aug-17	14-Nov-17 18-Feb-17	15-Dec-21
EMER MGMT: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea EMER MGMT: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	21-Oct-16 21-Feb-17	20-Nov-16 25-Mar-17	18-Feb-17 23-Jun-17	6-Jul-22 25-Feb-22
EMER MGMT: Assemble/Rack & Stack/Factory Test COM Equipment for Famax EMER MGMT: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	21-Feb-17 24-Jun-17	25-Mar-17 23-Jul-17	23-Jun-17 21-Oct-17	25-Feb-22 1-Jun-22
FIRE ALARM: Assemble/Rack & Stack/Factory Test COM Equipment for Western	14-Jul-16	13-Aug-16	11-Nov-16	21-Mar-22
FIRE ALARM: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	12-Nov-16	11-Dec-16	11-Mar-17	20-Jan-22
FIRE ALARM: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	14-Mar-17	15-Apr-17	14-Jul-17	4-Sep-21
FIRE ALARM: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	15-Jul-17	16-Aug-17	14-Nov-17	24-Feb-22
GAS DETECTION: Assemble/Rack & Stack/Factory Test COM Equipment for Western	8-Sep-16	9-Oct-16	7-Jan-17	26-Jan-21
GAS DETECTION: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	10-Jan-17	11-Feb-17 10-Jun-17	12-May-17	15-Mar-22
GAS DETECTION: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax GAS DETECTION: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	13-May-17 9-Sep-17	10-Jun-17 12-Oct-17	8-Sep-17 10-Jan-18	30-Oct-21 4-Mar-22
INTRUSION: Assemble/Rack & Stack/Factory Test COM Equipment for Western	8-Sep-16	9-Oct-16	7-Jan-17	6-Jan-21
INTRUSION: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	10-Jan-17	12-Jan-17	22-Mar-17	5-Apr-22
INTRUSION: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	13-May-17	10-Jun-17	8-Sep-17	19-Nov-21
INTRUSION: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	9-Sep-17	12-Oct-17	10-Jan-18	15-Mar-22
RADIO: Assemble/Rack & Stack/Factory Test COM Equipment for Western	31-Aug-16	30-Sep-16	29-Dec-16	9-Oct-20
RADIO: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	30-Dec-16	3-Feb-17	4-May-17	16-Dec-21
RADIO: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	5-May-17 1-Sep-17	2-Jun-17	31-Aug-17 30-Dec-17	7-Aug-21
RADIO: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega SCADA: Assemble/Rack & Stack/Factory Test COM Equipment for Western	14-Jul-16	1-Oct-17 13-Aug-16	11-Nov-16	14-Oct-21 27-Jan-21
SCADA: Assemble/Rack & Stack/Factory Test COM Equipment for Western SCADA: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	12-Nov-16	11-Dec-16	11-Nov-10	1-Dec-21
SCADA: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	14-Mar-17	15-Apr-17	14-Jul-17	21-Jul-21
SCADA: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	15-Jul-17	16-Aug-17	14-Nov-17	17-Dec-21
SEISMIC: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	8-Sep-16	9-Sep-16	22-Nov-16	14-Jul-22
SEISMIC: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	10-Jan-17	11-Feb-17	12-May-17	5-Mar-22
SEISMIC: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	13-May-17	10-Jun-17	8-Sep-17	22-Jun-22
TELEPHONE: Assemble/Rack & Stack/Factory Test COM Equipment for Western TELEPHONE: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	8-Sep-16 10-Jan-17	9-Oct-16 11-Feb-17	7-Jan-17 12-May-17	7-Jan-21 9-Jun-22
TELEPHONE: Assemble/Rack & Stack/Factory Test COM Equipment for Earlier TELEPHONE: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	13-May-17	10-Jun-17	8-Sep-17	7-Jan-22
TELEPHONE: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	9-Sep-17	12-Oct-17	10-Jan-18	4-May-22
TPIS: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	24-Sep-16	27-Oct-16	25-Jan-17	20-May-22
TPIS: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	26-Jan-17	1-Mar-17	30-May-17	24-Feb-22
TPIS: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	31-May-17	29-Jun-17	27-Sep-17	9-Jun-22
UPS: Manufacture/Factory Test COM Equipment for La Brea	1-Sep-16	1-Oct-16	30-Dec-16	7-Jan-22
UPS: Manufacture/Factory Test COM Equipment for Fairfax UPS: Manufacture/Factory Test COM Equipment for La Cienega	31-Dec-16	4-Feb-17	5-May-17	14-Oct-21
PROCURE GAS/WATERPROOFING MATERIALS FOR LA BREA STATION	6-May-17 2-Jul-17	3-Jun-17 1-Jul-17	1-Sep-17 29-Sep-17	21-Dec-21 15-Dec-17
FABRICATE CANOPY STRUCTURE - FAIRFAX STATION	24-Feb-17	23-Feb-17	24-May-17	4-Nov-22
FABRICATE CANOPY STRUCTURE - LA CIENEGA STATION	25-May-17	24-May-17	22-Aug-17	30-Nov-22
Mfgr/Assemble/Wire DC Switchgear - La Cienega TPSS	27-Jun-17	31-Aug-17	29-Nov-17	2-Feb-22
Mfgr/Assemble/Wire AC Switchgear - La Cienega TPSS	27-Jun-17	31-Aug-17	29-Nov-17	15-Feb-22
Mfgr/Assemble/Wire DC Switchgear - La Brea TPSS	30-Nov-17	8-Feb-18	9-May-18	18-Nov-20
Mfgr/Assemble/Wire AC Switchgear - Fairfax GBS	30-Nov-17	8-Feb-18	9-May-18	30-Jul-21
Mfgr/Assemble/Wire AC Switchgear - La Brea TPSS ATC: Procure/Deliver Switch Machines	10-May-18 31-Jul-16	13-Jul-18 16-Oct-16	11-Oct-18 14-Jan-17	13-Aug-21 17-Feb-22
COMPLETE MOCK-UP, FABRICATE CANOPY STRUCTURE - LA BREA STATION	27-Oct-16	24-May-17	22-Aug-17	21-Dec-22
FAB/DELIVER SOLDIER PILES / BEAMS - TBM RETRIEVAL SHAFT	9-Oct-16	12-Nov-16	10-Feb-17	14-Nov-17
FAB/DELIVER SOLDIER PILES / BEAMS - FAIRFAX STATION	27-Aug-16	30-Sep-16	29-Dec-16	8-Nov-16
FAB/DELIVER SOLDIER PILES / BEAMS - LA CIENEGA STATION	9-Feb-17	15-Mar-17	13-Jun-17	24-Jun-17
ATC: Assemble/Rack & Stack TC&C Equipment for Western	3-Nov-17	23-Feb-18	24-May-18	8-Oct-20
ATC: Assemble/Rack & Stack ATC Equipment for La Brea	3-Nov-17	23-Feb-18	24-May-18	9-Nov-21
ATC: Assemble/Rack & Stack ATC Equipment for Fairfax	20-Jan-18	11-May-18	9-Aug-18	10-Aug-21
ATC: Assemble/Rack & Stack ATC Equipment for La Cienega FABRICATE TRACK MATERIALS	12-Jun-18 7-Feb-19	27-Sep-18 5-Sep-19	26-Dec-18 4-Dec-19	28-Jan-22 20-Feb-21
ATC: Procure/Deliver WS Equipment & Devices	30-Mar-16	17-Sep-16	16-Dec-16	28-Jan-22
ATC: Procure/Deliver Wo Equipment & Devices ATC: Procure/Deliver Components & Materials - Western	5-Jan-17	4-Aug-17	2-Nov-17	8-Oct-20
ATC: Procure/Deliver Components & Materials - La Brea	5-Jan-17	4-Aug-17	2-Nov-17	9-Nov-21
71 C. 1 Todard Beliver Components & Materials La Brea				
ATC: Procure/Deliver Components & Materials - Fairfax ATC: Procure/Deliver Components & Materials - La Cienega	5-Jan-17 5-Jan-17	4-Aug-17 4-Aug-17	2-Nov-17 2-Nov-17	10-Aug-21 28-Jan-22

CRITICAL PATH NARRATIVE

The critical path for the Westside Purple Line Extension Project begins with the procurement process for the C1045 Design/Build contract, mobilization of the design team for the selected contractor, and the start of final design for station boxes and tunnels. Final design is concurrent with the C1055 Wilshire/Fairfax Advanced Utility Relocation and C1056 Wilshire/ La Cienega Advanced Utility Relocation contracts being performed by Metro's AUR Contractors and by third party utility companies. Upon completion of advanced utility relocations, the Design/Build contractor begins installation of soldier piles, first on the north side of the Wilshire/La Brea Station box, and then on the south side. Street decking is then installed, the station structural box is excavated, and invert concrete is placed. Tunneling then begins, first driving eastbound from Wilshire/La Brea to Wilshire/Western. TBMs are removed though a retrieval shaft at Wilshire/Western, reassembled at Wilshire/La Brea, and then driven westbound to Wilshire/La Cienega. Following construction of cross passages, the critical path continues through construction of the Wilshire/La Brea station box, installation of track-work and traction power, systems integration and testing, and pre-revenue operations.

PROJECT SCHEDULE CONTINGENCY DRAWDOWN



PROJECT SCHEDULE CONTINGENCY DRAWDOWN ANALYSIS

The project schedule contingency drawdown curve is based on a November 8, 2023 Revenue Service Date (RSD).

PROJECT COST STATUS

SCC DESCRIPTION	ORIGINAL BUDGET	CURREN	T BUDGET	СОММІ	TMENTS	EXPEND	ITURES	CURRENT	FORECAST	CURREN BUDGET FORECAS	
CODE		BUDGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	VARIANC
10	GUIDEWAY & TRACK ELEMENTS	388,294	-	388,294	-	380,970	505	19,183	-	387,938	(3
20	STATIONS, STOPS, TERMINALS, INTERMODAL	440,621	-	440,621	-	435,439	3,791	35,994	(33)	440,213	(4
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	43,323	-	43,323	2,235	36,392	23	640	2,230	43,991	ć
40	SITEWORK & SPECIAL CONDITIONS	751,566	-	754,491	858	769,361	5,412	418,335	3,921	794,732	40,2
50	SYSTEMS	113,574	-	113,574	-	98,008	-	9,799	-	113,574	
	CONSTRUCTION SUBTOTAL (10-50)	1,737,378	-	1,740,303	3,094	1,720,170	9,730	483,951	6,118	1,780,448	40,
60	ROW, LAND, EXISTING IMPROVEMENTS	175,634	-	175,634	-	175,634	713	168,597	-	202,980	27,
70	VEHICLES	160,196	-	160,196	-	-	-	-	(37,191)	108,302	(51,8
80	PROFESSIONAL SERVICES	412,710	-	414,785	163	281,830	4,566	227,857	-	418,141	3,3
	SUBTOTAL (10-80)	2,485,918	-	2,490,918	3,257	2,177,634	15,010	880,405	(31,072)	2,509,871	18,9
90	UNALLOCATED CONTINGENCY	248,592	-	248,592		-			31,072	274,044	25,4
100	FINANCE CHARGES	375,470	-	375,470	-	-	-	-	-	331,065	(44,
	TOTAL PROJECTS 465518 & 865518 (10-100)	3,109,980	-	3,114,980	3,257	2,177,634	15,010	880,405	-	3,114,980	
	ENVIRONMENTAL/PLANNING - 405518	8,505	-	8,505		8,505		8,505	-	8,505	
	ENVIRONMENTAL/PLANNING - 465518	30,865	-	30,865	-	30,865	-	30,852	-	30,865	
	TOTAL PROJECTS 405518 & 465518 (ENV / PLAN'G)	39,370	•	39,370	-	39,370	-	39,357	-	39,370	
	TOTAL PROJECTS 405518, 465518 & 865518	3,149,350		3,154,350	3,257	2,217,004	15,010	919,762	-	3,154,350	

PROJECT COST ANALYSIS

Original Budget

The Original Budget of \$3.2 billion reflects the Board approved Life of Project Budget, July 24, 2014, plus Finance Charges of \$0.4 billion.

Current Budget

The Current Budget and Current Forecast remains the same this period at \$3.2 billion.

Current Forecast

The Current Forecast remains the same this period at \$3.2 billion. However, the Support Facilities: Yards, Shops, Admin. Bldgs. and the Sitework & Special Conditions categories were increased by \$2.2 million and \$3.9 million; respectively, primarily for additional work associated with the relocation of the Division 20 Maintenance of Way/Non-Revenue Vehicle Building 61S and Betterments requested by the City of Los Angeles. The Vehicles category was reduced by \$37.2 million to reflect the Board approved award amount of the Heavy Rail Vehicles procurement contract. The net of \$31.1 million was transferred to Unallocated Contingency.

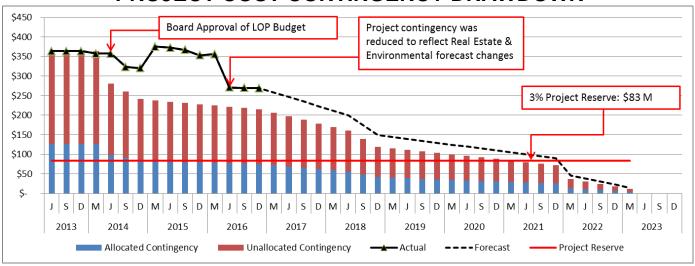
Commitments

The Commitments increased by \$3.3 million primarily due to executed Change Orders for the Design/Build Contract C1078. The \$2.2 billion in Commitments to date represents 70.3% of the Current Budget.

Expenditures

The Expenditures are cumulative through December 2016. The Expenditures increased by \$15.0 million primarily for costs associated with the Design/Build Contracts C1045 and C1078, Real Estate Acquisitions, Advanced Utility Relocations, Engineering Management Services, Construction Management Support Services, and Metro Project Administration. The \$919.8 million in Expenditures to date represents 29.2% of the Current Budget.

PROJECT COST CONTINGENCY DRAWDOWN



PROJECT COST CONTINGENCY DRAWDOWN ANALYSIS

The Current Budget of \$3.2 billion (plus Finance Charges of \$0.4 billion) includes a project cost contingency of \$320.6 million or 10.2% of the total project. The project cost contingency of \$320.6 million is based upon the Life of Project (LOP) Budget that was approved by the Board in July 2014. The LOP Budget also included an allocated contingency amount of \$72.0 million. The allocated contingency is an amount to cover anticipated but unknown contract modifications issued by Metro where applicable to specific contracts within each Standard Cost Category (SCC).

Included in the project cost contingency drawdown is a 3% project reserve threshold. Metro's Board is to be notified when it becomes necessary to drawdown contingency below the project reserve threshold to cover project costs. This was adopted by the Metro Board of Directors in September 2012.

The project cost contingency drawdown curve is based on a November 8, 2023 Revenue Service date.

The project contingency increased this period by \$41.8 million primarily due to the forecast changes of the Heavy Rail Vehicles procurement contract HR4000.

PROJECT COST CONTIN	PROJECT COST CONTINGENCY											
DOLLARS IN THOUSANDS												
	Original Contingency (Budget)	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)							
Unallocated Contingency	248,592	(5,620)	31,072	25,452	274,044							
Allocated Contingency	71,963	(45,532)	10,725	(34,807)	37,157							
Total Contingency	320,555	(51,152)	41,797	(9,354)	311,201							

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

RACE-CONSCIOUS DISADVANTAGED BUSINESS ENTERPRISE (RC-DBE) STATUS

Contract C1045 Westside Purple Line Extension, Section 1 Design-Build

(Reporting Data as of January 2017)

• DBE Goal – Design 20%

Current DBE Commitment \$12,969,370 (20.25%)

• Current DBE Participation \$9,870,115 (16.94%)

• Fourteen (14) Design DBE subcontractors have been identified for Design

• DBE Goal – Construction 17%

Current DBE Commitment \$259,306,471(17%)

• Current DBE Participation \$35,284,570 (9.22%)

Eighty three (83) Construction DBE subcontractors have been identified to-date

PROJECT LABOR AGREEMENTS (PLA) STATUS

Contract C1045 Westside Purple Line Extension, Section 1 Design-Build

(Reporting Data as of December 2016)

• Targeted Worker Goal 40.00%

Targeted Worker Current Participation 67.14%

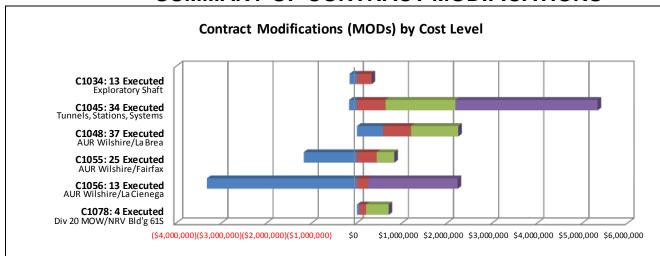
Apprentice Worker Goal
 20.00%

Apprentice Worker Current Participation 16.83%

Disadvantaged Worker Goal

Disadvantaged Worker Current Participation 8.59%

SUMMARY OF CONTRACT MODIFICATIONS



	C1034	C1045	C1048	C1055	C1056	C1078	Total
	13 Executed	34 Executed	37 Executed	25 Executed	13 Executed	4 Executed	iotai
Under \$100K	(164,288)	(173,195)	574,448	(1,179,119)	(3,324,793)	48,565	(4,218,382)
■ \$100K to \$250K	321,000	626,791	616,809	436,190	245,024	151,324	2,397,138
■ \$250K to \$1M	-	1,554,550	1,050,980	390,709	-	500,798	3,497,037
Over \$1M	-	3,150,000	-	-	1,983,179	-	5,133,179
Total Contract MODs	156,712	5,158,146	2,242,237	(352,220)	(1,096,590)	700,687	6,808,972
Contract Award Amount	6,487,020	1,636,418,585	6,181,000	14,430,000	20,250,000	52,830,310	1,736,596,915
% of Contract MODs	2.4%	0.3%	36.3%	-2.4%	-5.4%	1.3%	0.4%

Percent of Contract MODs equals the Total Contract MODs divided by the Contract Award Amount.

Thirteen Contract MODs with a total value of \$0.2 million have been executed since the award of Contract C1034 – Exploratory Shaft Construction by Innovative Construction Solutions (ICS). The contract has been completed and is closed out.

Thirty-four Contract MODs with a total value of \$5.2 million have been executed since the award of Contract C1045 – Tunnels, Stations, Trackwork, Systems and Systems Integration Testing by Skanska - Traylor - Shea, a Joint Venture.

Thirty-seven Contract MODs with a total value of \$2.2 million have been executed since the award of Contract C1048 – Advanced Utility Relocations at Wilshire/La Brea by Metro Builders & Engineering Group, LTD. The contract has been completed and is closed out.

Twenty-five Contract MODs with a total value of <\$0.4> million have been executed since the award of Contract C1055 – Advanced Utility Relocations at Wilshire/Fairfax by W. A. Rasic Construction Company, Inc. The contract has been completed and is closed out.

Thirteen Contract MODs with a total value of <\$1.1> million have been executed since the award of Contract C1056 – Advanced Utility Relocations at Wilshire/La Cienega by Steve Bubalo Construction Co.

Four Contract MODs with a total value of \$0.7 million have been executed since the award of Contract C1078 – Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building 61S.

FINANCIAL/GRANT STATUS

	(A) ORIGINAL	(B) TOTAL	(C) TOTAL	(D)	(D/B) IITMENTS	(E)	(E/B) NDITURES	(F) BILLED TO	(F/B)
SOURCE	BUDGET FUNDS		FUNDS	COIVIIV	II TIVILIVIO	LAIL	INDITIONEO	SOURCE	
		ANTICIPATED	AVAILABLE	\$	%	\$	%	\$	%
FEDERAL - SECTION 5309 NEW STARTS	\$1,250.000	\$1,250.000	\$265.000	\$1,250.000	100%	\$265.000	21%	\$265.000	21%
FEDERAL CMAQ	\$12.171	\$12.171	\$12.171	\$12.171	100%	\$12.171	100%	\$12.171	100%
FEDERAL SECTION 5339 - ALTERNATIVES ANALYSIS	\$0.512	\$0.512	\$0.512	\$0.512	100%	\$0.512	100%	\$0.512	100%
MEASURE R - TIFIA LOAN	\$856.000	\$856.000	\$0.000	\$0.000	0%	\$0.000	0%	\$0.000	0%
MEASURE R 35%	\$869.178	\$874.178	\$481.414	\$868.105	99%	\$555.863	64%	\$489.018	56%
STATE STIP RIP	\$2.568	\$2.568	\$2.568	\$2.568	100%	\$2.568	100%	\$2.568	100%
STATE CAPITAL PROJECT LOANS - OTHERS *	\$83.648	\$83.648	\$83.648	\$83.648	100%	\$83.648	100%	\$54.500	65%
CITY OF LOS ANGELES	\$75.273	\$75.273	\$0.000	\$0.000	0%	\$0.000	0%	\$0.000	0%
TOTAL	\$3.149.350	\$3,154.350	\$845.313	\$2,217,004	70.3%	\$919.762	29.2%	\$823.769	26.1%

EXPENDITURES ARE CUMULATIVE THROUGH DECEMBER 2016
ORIGINAL BUDGET BASED ON JULY 2014 BOARD APPROVED LOP BUDGET

STATUS OF FUNDS ANTICIPATED

FEDERAL SECTION 5309 NEW STARTS: FTA Grant CA-03-0824 for \$65.0 million was awarded on June 2, 2014. FTA Grant CA-03-0824-01 for \$100.0 million was awarded on August 10, 2015. FTA Grant CA-2016-017 for \$100.0 million was awarded on September 8, 2016. Funds are available for drawdown.

FEDERAL SECTION 5309 ALTERNATIVE ANALYSIS: FTA Grant CA-39-0006 of \$0.5 million was awarded on July 25, 2014. Funds are available for drawdown.

MEASURE R – TIFIA LOAN (Transportation Infrastructure Finance & Innovation Act): TIFIA Loan was executed on May 21, 2014 for \$856.0 million. First disbursement is planned for FY 2017.

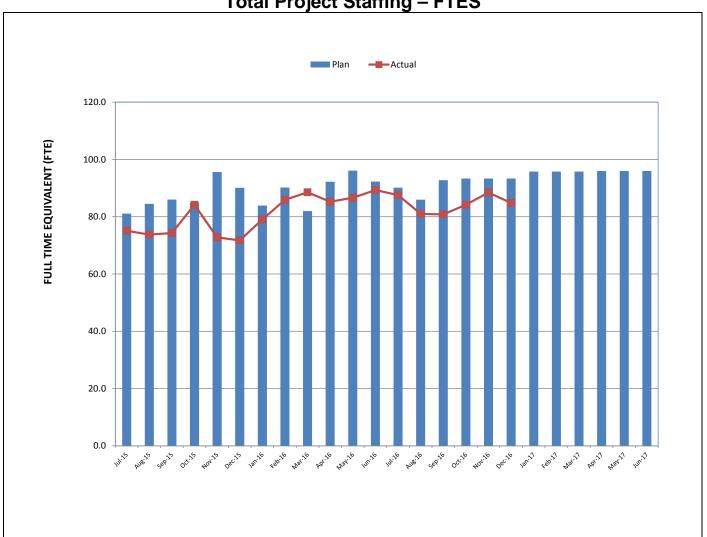
MEASURE R 35%: \$481.4 million have been allocated to the Project through FY16. Funds are available for drawdown.

STATE STIP RIP: State grant application of \$8.4 million, of which \$2.6 million has been allocated to this project, was awarded on July 26, 2007. Funds are available for drawdown.

CMAQ (Congestion Mitigation & Air Quality): FTA Grant CA-95-X264 for \$12.2 million was awarded on July 27, 2015. Funds are available for drawdown.

^{*} OTHERS INCLUDE TDA ADMINISTRATION (\$4.1M), LTF GENERAL REVENUES (\$1.8M), AND LEASE REVENUES (\$37.8M)

STAFFING STATUSTotal Project Staffing – FTES

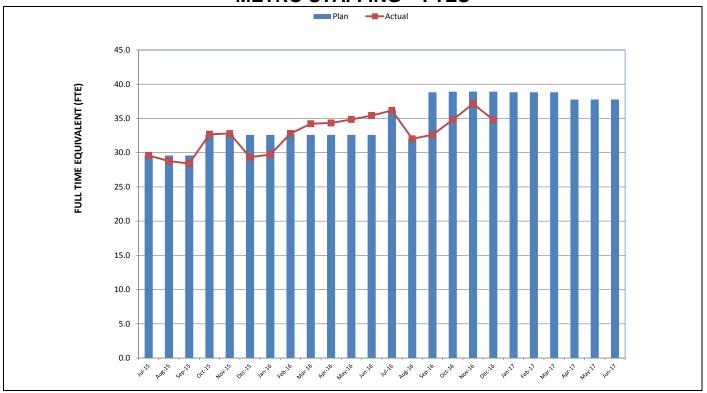


TOTAL PROJECT STAFFING

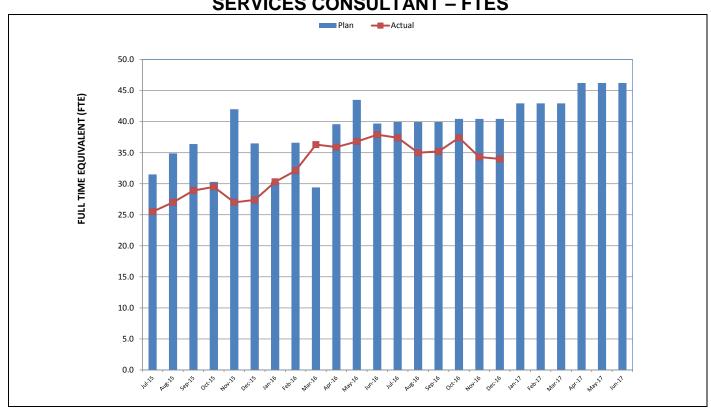
The overall FY17 Total Project Staffing Plan averages 93.7 FTEs per month.

For December 2016, there were a total of 34.8 FTEs for MTA's Project Administration Staff and 50.0 FTEs for Consulting Staff. The total project staffing for December 2016 was 84.8 FTEs.

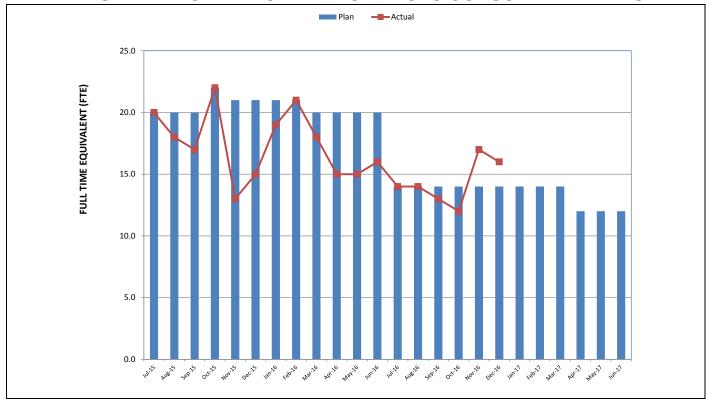
STAFFING STATUS (Continued) METRO STAFFING – FTES



CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONSULTANT – FTES



STAFFING STATUS (Continued) ENGINEERING MANAGEMENT SERVICES CONSULTANT – FTES



REAL ESTATE STATUS

Purple Line Extension Section 1 - Real Estate Status Summary										
Description	Number of Parcels	Certified	Appraisals Completed	Offers Made	Agreements/ Settlements Signed	Relocations		Parcels		
						Required	Completed	Available		
Full Takes	9	9	9	9	9	109	109	9		
Part Takes	6	6	6	5	1	0	0	5		
TCE	4	4	4	4	1	0	0	4		
Total Parcels	19	19	19	18	11	109	109	18		

The total count of the 19 parcels include the two Division 20 parcels required for constructing the MOW/NRV Building 61S.

Metro has possession of 18 parcels by either acquisition, possession and use agreements or stipulations. The C1045 contractor has possession of all properties needed to construction the Project. The purchase agreement for Parcel W-6104 (Chalmers) at Division 20 was approved by the Metro Board in June 2016. A right-of-entry agreement is being executed between Chalmers and Metro in order to proceed with construction work in advance of closing escrow.

QUALITY ASSURANCE STATUS

C1045 – Tunnels, Stations, Trackwork, Systems and Systems Integration Testing

- Attended weekly Project staff meetings and progress meetings with the Contractor Skanska/Traylor/Shea (STS).
- Ongoing discussions and coordination with the Engineering Management Services Consultant (EMSC) and Construction Management Support Services Consultant (CMSSC) support staff for quality oversight.
- Reviewed daily inspection reports from the Contractor/Field Technician and CMSSC oversight inspection personnel. Inspections show that the work is predominately compliant.
- Reviewed and provided comments on quality related submittals construction work plan, project specifications, product data and quality manuals.
- Continue to track structural support members which require modification through open items list and RFI process (Wilshire/La Brea and Wilshire/Fairfax Support of Excavation).
- Metro QAC conducted surveillances of the contractor's implementation of their quality procedures at the Wilshire/La Brea and Wilshire/Fairfax Support of Excavation including precast plants for fabrication of deck panels and tunnel ring segments.
- Processed 15 surveillances, five Quality Action Requests and two Nonconformance Reports and one Corrective Action Request.

C1078 - Division 20 MOW and NRV Building 61S

- Attended weekly Project Staff Meetings and Progress Meetings with the Contractor.
- Reviewed and provided comments on quality related submittals.
- Reviewed daily inspection reports from Contractor's quality assurance inspection team.
 Inspections show that the work is predominately compliant.

ENVIRONMENTAL STATUS

- Limited noise and vibration monitoring performed by DB Contractors.
- Conducted field environmental monitoring and spot inspections for construction noise, stormwater BMPs, dust and cultural resources for C1045, and Third Party work activities.
- Reviewed C1045 Contractor submittals and tracked monitoring and reporting obligations in accordance with contract Specifications and EIR requirements.
- Participated in C1045 Contract Coordination Meetings and evaluated progress and schedules for upcoming construction activities.
- Conducted weekly Environmental Compliance Progress Meetings and Monthly Environmental Mitigation (MMRP) update meeting with C1045 contractor.
- Participated in various Construction Work Plan Workshops and Readiness Review Meetings prior to start of new construction activities.
- Ongoing coordination of appropriate sediment, erosion and track out BMP measures.
- Continued work on Location 61S (Division 20) Groundwater Plume Cleanup on north side of site.
- Continued work on foundation excavation scope and shoring plans for Building 61S (C1078).
- Reviewed/approved C1045 Contractor Parking Management Plan, including parking control measures, submittal in accordance with EIR requirements.
- Reviewed the EIR, C1045 contracts, C1045 drawings and approved mitigation measures (MMs) for post-construction BMPs and LID requirements.
- Obtained extension of City of Los Angeles tree removal permit through August 2017.
- Seven TCE (temporary construction easement) Baseline Environmental Assessments were completed and final reports submitted to Metro.
- Parcels W-2301 and W-2307 Phase II ESAs completed and final reports submitted to Contractor. Phase I and II summary matrix updated and submitted to Contractor.
- Installation and permitting of air scrubbers underway.
- Reviewed Wastewater Management Plan including regulatory agency permit approvals.
- Reviewed Contractor's Groundborne Noise and Vibration Report.
- Assessing public right-of-way Low Impact Designs (LIDs).
- Reviewed Contractor's analysis for the center muck shaft at the Wilshire/La Brea Station.

CONSTRUCTION RELATIONS STATUS

- Produced and distributed 24 construction work notices for advance utility relocations and construction activities.
- Made Project Presentations at the following: Sycamore Square and CD4 Meeting, Mid-City West Community Council, Greater Wilshire Neighborhood Council, Fairfax Coordinated Construction Projects Meeting, Elected Officials Briefing and Construction Community Meeting.
- Construction issues: Addressed noise complaint regarding excavation support activities at Wilshire/Sycamore Blvd. and piling work at Wilshire/Fairfax intersection.
- Visited and updated businesses and residences at future station locations to discuss proposed center opening concept on Wilshire Blvd. at Sycamore, Wilshire/La Brea Station excavation, utility relocations, decking installation at Wilshire/Fairfax Station, business profiles and new Eat, Shop, Play Wilshire promotional campaign for businesses.
- Attended the following meetings: Construction Management, Advanced Utility Relocations, Construction Relations, Environmental Mitigations, STS Third Party Workshop, Beverly Hills MOA and AUR, Marketing, Social Media, Eat, Shop, Play, Bus Relocations and Stops and DOT/Elected Officials.
- Updated website, Facebook, Twitter as needed.
- Continued with the "Eat, Shop, Play Spotlight" campaign to advertise and promote businesses along Wilshire Boulevard. Two businesses are being highlighted per month.
- Launched first Eat, Shop, Play newsletter for the Project.

CREATIVE SERVICES STATUS

- Continued to refine project artwork opportunities and locations.
- Responded to RFIs and submittals.
- Participated in Design Build Workshops and document reviews.
- Held meeting with Farmers Market and LACMA stakeholders.
- Identified site for relocation of former Wilshire/La Brea Customer Service Center artwork.

SAFETY & SECURITY STATUS

- There were two worker injuries during January 2017 including the exacerbation of a back injury which the employee experienced at another workplace (injury not recordable by project) and a finger injury that required stiches meeting the definition for recordable.
- Metro continues to work with the D/B contractor to insure adequate Construction Safety Staffing in compliance with the Contract.
- Design Builder's construction activities (also day and night) and the C1078 Maintenance of Way Building site continue to be monitored to document contractor compliance with contract specifications.
- Safety staff attended weekly Progress Meetings, readiness reviews, and other project meetings to evaluate Contractors Safety Program compliance with contract requirements.
- Metro Construction Safety hosted Monthly All Hands Safety Meeting for all Westside-Purple Line Extension Contractors (including environmental contractors) on January 24, 2017.
- Construction Safety staff continue to work with Program Management and Construction Relations staff to monitor issues related to public concerns regarding noise, traffic and transient encampment hazards as well as public interactions with the construction crews.
- The statistics below continue to be estimates due to the under-report of hours discussed last month. Metro staff is working with the contractor to return to the actual reported numbers.
- December 2016 Contractor Work Hours (Design & Construction): 49,390
- Contractor Project to Date Work Hours (Design & Construction) (through 12/31/2016): 1,116,442
- Total Project to Date Work Hours (Contractor & the IPO Staff) (through 12/31/2016): 1,465,194
- Project to Date Recordable Injury Rate: 0.4 (Three Recordable Injuries) (each rate is per 200,000 work hours) (National Rate: 2.8)
- Project to Date Total Time Away Injury Rate: 0.3 (Two Time Away From Work Injuries)
 (National Rate: 1.7)
- Project to Date Total Days Away Rate: 29.6 (217 Days Away From Work) (No National Rate Published)
- National Rates for Heavy and Civil Construction (NAICS Code 237) are for Calendar Year 2015, published by USBLS in October 2016.

THIRD PARTY AGREEMENT STATUS

Third Party	Type of Agreement	Forecast Execution	Required Need Date	Status/ Comments
	Agreement	Date	Need Date	Comments
City of Los Angeles (LA)	Master Cooperative Agreement	N/A	N/A	Parties will work under 2003 MCA.
City of Beverly Hills (BH)	Memorandum of Agreement (La Cienega only)	9/14 (AUR) 02/17 (D/B)	9/14 (AUR) 1/17 (D/B)	City of Beverly Hills approved the MOA for the C1056 Wilshire/La Cienega AUR contract on August 19, 2014. Metro continues to work with the City to establish an MOA for the C1045 Design/Build contract. Required Need Date reflects the early contractual turnover date to C1045 contractor for all areas at Wilshire/La Cienega.
Los Angeles Department of Water and Power	Master Cooperative Agreement	N/A	N/A	Metro and LADWP will continue to work under the terms of the previous MCA.
Los Angeles County Public Works	Master Cooperative Agreement	4/11	3/12	Executed
Caltrans	Master Cooperative Agreement	8/11	3/12	Executed
Private Utilities	Utility Cooperative Agreement	9/14	N/A	Metro is working with affected third party utilities under existing agreements except for Qwest/Century Link and Level 3. Draft agreements for Qwest/Century Link and Level 3, and a new agreement for SCE are all under review. In absence of an agreement, work is being performed by work orders.

ADVANCED UTILITY RELOCATION STATUS

- AT&T relocations at the Wilshire/La Cienega Station are anticipated to complete in February 2017.
- On August 5, 2016, the C1056 Contractor achieved substantial completion prior to the contractual substantial completion date of December 8, 2016. Remaining punch list items were completed in November 2016. Contract closeout is nearing completion.

PEAK HOUR AND NIGHTTIME CONSTRUCTION VARIANCES

Metro is actively pursuing extended hour variances/exemptions to accommodate the Project needs. Metro staff is working with the City of Los Angeles Bureau of Engineering and the Los Angeles Police Commission to obtain Peak Hour Exemptions and Nighttime Construction Variances. Current efforts center around extending the existing nighttime noise variances to accommodate advanced utility relocations at the Wilshire/La Brea and Wilshire/Fairfax Station sites as well as obtaining new nighttime noise variances and peak hour exemptions to allow night work and weekend work to accommodate the Wilshire/La Brea, Wilshire/Fairfax and Wilshire/Western piling operations for the Design/Build contractor.

- An extension to the Peak Hour Exemption for the Wilshire/Fairfax Station pile installation has been approved by the City of Los Angeles, extending the date to March 6, 2017.
- An extension to the Peak Hour Exemption for the south side k-rail setup at Wilshire/La Brea Station has been approved by the City of Los Angeles, extending the date to March 3, 2017.
- The Peak Hour Exemption for all jet grouting activities between Crenshaw Boulevard and Rimpau Street was approved by the City of Los Angeles on November 17, 2016. The Peak Hour Exemption is for the dates of November 18, 2016 through February 24, 2017.
- The Nighttime Noise Variance for the Wilshire/La Brea Advanced Utility Relocation work has been extended to April 18, 2017 by the Los Angeles Police Commission.
- The Nighttime Noise Variance for the Wilshire/Fairfax Advanced Utility Relocation work has been extended to July 16, 2017 by the Los Angeles Police Commission.
- The Nighttime Noise Variances for the five yard locations in the City of Los Angeles (North La Brea, South La Brea, Fairfax, Western and Crenshaw) have been extended to July 15, 2017 by the Los Angeles Police Commission.
- The Nighttime Noise Variance for the decking and excavation work at Wilshire/La Brea Station has been extended to May 31, 2017 by the Los Angeles Police Commission.
- The Nighttime Noise Variance for the pile installation at the Wilshire/Fairfax Station has been extended to March 24, 2017.
- A Nighttime Noise Variance for decking and excavation work at Wilshire/Fairfax Station has been approved for the dates of January 2, 2017 through July 2, 2017.

CHRONOLOGY OF EVENTS

June 2007	Began Alternatives Analysis study
January 2009	Board approval of Alternatives Analysis study and next phase
February 2009	Began Draft Environmental Impact Statement / Report (EIS / EIR)
October 2010	Board approval of Draft EIS / EIR and selection of locally preferred alternative
January 2011	FTA approval to enter Preliminary Engineering
May 2011	Began Preliminary Engineering
April 2012	Board certification of Final EIS / EIR and adoption of project
July 2012	Completion of Exploratory Shaft final design
August 2012	FTA Record of Decision
September 2012	Began Real Estate Acquisition
November 2012	Began Final Design - C1048 - Advanced Utility Relocations contract – Wilshire/La Brea
November 2012	Began Final Design - C1055 - Advanced Utility Relocations contract – Wilshire/Fairfax
November 2012	Issued RFQ for C1045 Design / Build contract
December 2012	Began Final Design - C1056 - Advanced Utility Relocations contract – Wilshire/La Cienega
January 2013	Began C1034 Exploratory Shaft construction
February 2013	Received RFQ responses for C1045 Design / Build contract
June 2013	Issued RFP for C1045 Tunnels, Stations, Trackwork, Systems and Systems Integration Testing
June 2013	Beginning of C1055 AUR Wilshire/Fairfax Bid Period
July 2013	Submitted draft FFGA application

CHRONOLOGY OF EVENTS (Continued)

July 2013	Completed Final Design - C1048 - Advanced Utility Relocations contract – Wilshire/La Brea
July 2013	Submitted TIFIA loan application
August 2013	Began C1048 Advanced Utility Relocations contract – Wilshire/La Brea
August 2013	NTP for Construction Management Support Services Contract
January 2014	Submitted application to FTA requesting an FFGA
January 2014	Received RFP Proposals for Contract C1045
February 2014	Beginning of C1056 AUR Wilshire/La Cienega Bid Period
May 2014	FTA awarded FFGA
May 2014	Received TIFIA Loan
June 2014	Began C1055 Advanced Utility Relocations at Wilshire/Fairfax
July 2014	Metro Board approved staff recommendation to award Contract C1045 and approved Life-of-Project Budget
September 2014	Issued Invitation to Bid for Contract C1078
October 2014	Issued C1056 Contract Award
November 2014	Issued C1045 Contract Award
January 2015	Issued C1045 Contract Notice to Proceed
January 2015	Issued C1056 Contract Notice to Proceed
February 2015	Received Contract C1078 Bids
August 2015	Issued C1078 Contract Award
September 2015	Issued C1078 Contract Notice to Proceed
October 2015	Contract C1055 achieved Substantial Completion
June 2016	Began deck beam and decking operations for Wilshire/La Brea Station
August 2016	Contract C1056 achieved Substantial Completion

Westside Purple Line Extension Section 1 Project Monthly Project Status Report

CONTRACT C1045 STATUS

Description: Westside Purple Line Extension Design-Build Contractor: SKANSKA - TRAYLOR - SHEA	Contract No. Status as of:	C1045 Janua	ry 27, 2	017			
Progress / Work Completed: - DU #3 Wilshire/Fairfax – AFC submittal	Major Activities (In Progress): - DU #6 Systems – AFC submittal - DU #4 Wilshire/La Cienega – AFC submittal - Wilshire/La Brea excavation muck shaft and tie-back installation - Wilshire/La Brea under deck utility support - Wilshire/La Brea under deck excavation - Wilshire/La Brea installation of dewatering system - Wilshire Blvd. jet grouting tunnel cross passages - Wilshire/La Cienega vibration monitoring equipment - Wilshire/Fairfax south side pile installation						
Areas of Concern: Dewatering and utility hanging (gas, storm drain, sewer) activities have impacted Wilshire/La Brea Station excavation. Metro and STS are currently are currently holding joint schedule workshops to address schedule challenges and explore float recovery opportunities.	Major Activities Next Period: - Wilshire/La Brea dewatering continues - Wilshire/La Cienega soundwall installation - Wilshire/La Brea under deck excavation continues - Wilshire/Fairfax pile installation continues - Wilshire/Fairfax pile decking begins						
Schedule Summary:		Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs	
Date of Award: 11/04/14 Notice to Proceed: 01/12/15 Original Contract Duration: 3250 CD	Notice to Proceed (Estimated)	01/12/15	0	01/12/15	01/12/15	0	
Original Contract Duration: 3250 CD Current Contract Duration: 3250 CD Elapsed Time from NTP: 746 CD	Milestone 1: Substantial Completion Milestone 2: Stations available to UFS	06/09/23 10/07/22	0	06/09/23 10/07/22	06/09/23 10/07/22	0	
	Milestone 3: Start of Integration Testing to ROC	01/10/23	0	01/10/23	01/10/23	0	
	Milestone 4: Demobilization	12/06/23	0	12/06/23	12/06/23	0	
	Milestone 5: Temporary Construction Easements	01/10/23	0	01/10/23	01/10/23	0	
Physical Percent Complete:	Cost Summary: \$ In millions 1. Award Value: 1,636.4						
 3. Approved Change Orders: 0. * Note: Physical completion assessment reflects 4. Current Contract Value (1+2+3): 1,641. 			5.2 0.0 1,641.6 477.1				

Westside Purple Line Extension Section 1 Project Monthly Project Status Report

CONTRACT C1056 STATUS

Contract No. Status as of:	C1056 Janua	ry 27, 2	017				
Major Activities - Contract closeout	(In Pro	ogress)	:				
Major Activities Next Period: - Contract final acceptance							
	Original	Time	Current		Variance		
	Contract Dates	Extension	Contract	Forecast	CDs		
Notice to Proceed (Estimated)	01/12/15	0	01/12/15	01/12/15	0		
Milestone 1:	07/13/16	0	07/13/16	04/28/16	76		
Milestone 2: Substantial Completion	12/08/16	0	12/08/16	08/05/16	125		
Cost Summary: 1. Award Value:			\$ In millions				
 Executed Modifications: Approved Change Orders: Current Contract Value (1+2+3): Incurred Cost: 			-1.1 0.0 19.2 19.2				
	Major Activities - Contract closeout Major Activities - Contract final accepta Notice to Proceed (Estimated) Milestone 1: Milestone 2: Substantial Completion Cost Summary 1. Award Value: 2. Executed Modificat 3. Approved Change Completion	Major Activities (In Pro-Contract closeout Major Activities Next F - Contract final acceptance Original Contract Dates Notice to Proceed (Estimated) Milestone 1: O7/13/16 Milestone 2: Substantial Completion 12/08/16 Cost Summary: 1. Award Value: 2. Executed Modifications: 3. Approved Change Orders:	Status as of: January 27, 2 Major Activities (In Progress): - Contract closeout Major Activities Next Period: - Contract final acceptance Original Contract Dates Notice to Proceed (Estimated) Notice to Proceed (Estimated) Milestone 1: 07/13/16 0 Milestone 2: Substantial Completion 12/08/16 0 Cost Summary: 1. Award Value: 2. Executed Modifications: 3. Approved Change Orders:	Status as of: January 27, 2017 Major Activities (In Progress): - Contract closeout Major Activities Next Period: - Contract final acceptance Original Contract Dates Notice to Proceed (Estimated) Notice to Proceed (Estimated) Milestone 1: 07/13/16 0 01/12/15 Milestone 2: Substantial Completion 12/08/16 0 12/08/16 Cost Summary: \$ Is Cost Summary: 1. Award Value: 2. Executed Modifications: 3. Approved Change Orders:	Major Activities (In Progress): - Contract closeout		

Westside Purple Line Extension Section 1 Project Monthly Project Status Report

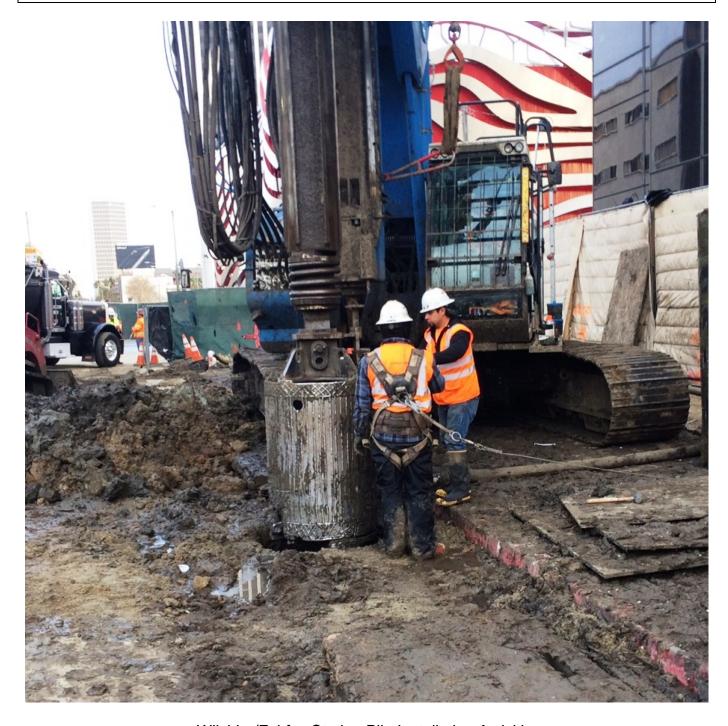
CONTRACT C1078 STATUS

Description: Building 61S (MOW/NRV) Contractor: Clark Construction		1078 anuary 27, 2	017					
Progress / Work Completed: - Start of construction for sanitary sewer relocation. Encountered delays due to inclement weather. - Phase II shoring plans submitted and under review. - "Over the Shoulder" reviews for APDU#2 and APDU#3 held on January 19, 2017. - Contractor incoporated responses for APDU#2 and APDU #3 and resubmitted as AFC package. - APDU#2 separated into street improvement work (trees, lighting, gate) and submitted as 100% plan set.	Major Activities (In Progress): - Contractor continues design development - Processing CN-00008: Relocation of 8" sanitary sewer (deletion) CN issued, pending CSP. - Processing CN-00010: Construction Impacts of Relocating Building. CSP in review and completion of TA and PNP. Fact finding ongoing. CO NTE issued to Contractor. - Processing CN-00011: Schedule Impacts to 3rd Party Contractor Work. CN on hold to possible SOW revision. Completion of CSP and ICE to follow - Processing CN-00012: City of Los Angeles Access Gate. CN issued to the Contractor for CSP. Fact finding scheduled. Pending ICE and TIA.							
Areas of Concern: - Property exchange agreement with Chalmers LLC needs to be finalized and Right of Entry Agreement needs to be executed	Major Activities Next Period: - Continuation of sanitary sewer and storm drain relocations. - DU#2 (Building): Next submittal due February 24, 2017 after APDU#2 and APDU#3 are resubmitted. - Public hearing for zone change scheduled for February 1, 2017. - Next DAG meeting scheduled for March 22, 2017.							
Schedule Summary: Date of Award: 08/03/15 Notice to Proceed: 09/30/15 Original Contract Duration: 853 CD Current Contract Duration: 1023 CD Elapsed Time from NTP: 485 CD	Notice to Proceed (Estimated) 09	Driginal ontract Dates	Current Contract 0 1023	Forecast 09/30/15 07/19/18	Variance CDs 0			
Physical Percent Complete: Physical completion: 10.74% * Note: Physical completion assessment reflects	Cost Summary: \$ In millions 1. Award Value: \$ 52.8 2. Executed Modifications: \$ 0.7 3. Approved Change Orders: \$ 4.2 4. Current Contract Value (1+2+3): \$ 57.7							
work completed and work in progress.	5. Incurred Cost: \$ 10.8							

CONSTRUCTION PHOTOGRAPHS



Support of Utilities under the Deck at Wilshire/La Brea Station



Wilshire/Fairfax Station Pile Installation Activities

APPENDIX COST AND BUDGET TERMINOLOGY

Project Cost Descriptions

ORIGINAL BUDGET The Original Project Budget as authorized by the Metropolitan

Transportation Authority (Metro) Board.

The Original Budget plus all budget amendments approved by **CURRENT BUDGET**

formal Metro Board action. Also referred to as Approved

COMMITMENTS The total of actual contracts awarded, executed change orders

or amendments, and approved work orders of Master

Cooperative Agreements, offers accepted for purchase of real estate, and other Metro actions which have been spent or result in the obligation of specific expenditures at a future time.

EXPENDITURES The total dollar amount of funds expended by Metro for

> contractor or consultant services, third party services, staff salaries, real estate and other expenses that is reported in

Metro's Financial Information System (FIS).

The best estimate of the final cost of the Project when all CURRENT FORECAST

> checks have been issued and the Project is closed out. Current Forecast is composed of actual costs incurred to date, the best estimate of work remaining and a current risk assessment for

each budgeted cost item.

Cost Report by Element Descriptions

CONSTRUCTION Includes construction contracts. Cost associated with

Guideways, Stations, Southwestern Yard, Sitework/Special.

Conditions and Systems.

RIGHT-OF-WAY Includes purchase cost of parcels, easements, right-of-entry

permits, escrow fees, contracted real estate appraisals and

tenant relocation.

VEHICLES Includes the purchase of Heavy Rail Vehicles and spare parts

for the Project.

PROFESSIONAL

Includes design engineering, project management assistance, SERVICES

construction management support services, legal counsel,

agency staff costs, and other specialty consultants.

A fund established at the beginning of a project to provide for CONTINGENCY

anticipated but unknown additional costs that may arise during

the course of the Project.

PROJECT REVENUE Includes all revenue received by Metro as a direct result of

project activities. This includes cost sharing construction items,

insurance premium rebates, and the like.

APPENDIX

LIST OF ACRONYMS

ATC Automatic Train Control

ATSAC Automated Traffic Surveillance and Control

BAFO Best and Final Offer

BIM Building Information Modeling

BNSF Burlington Northern Santa Fe Railway Company

BRT Bus Rapid Transit

CADD Computer Aided Drafting and Design
CALTRANS California Department of Transportation

CCTV Closed Circuit Television

CD Calendar Day

CEQA California Environmental Quality Act

CM Construction Manager

CMAQ Congestion Mitigation and Air Quality Improvement Program CMSSC Construction Management Support Services Consultant

CN Change Notice
CO Change Order
COBH City of Beverly Hills
COLA City of Los Angeles
CPM Critical Path Method

CPUC California Public Utilities Commission

CR Camera Ready

CRMMP Cultural Resource Monitoring and Mitigation Plan

CSPP Construction Safety Phasing Plan
CTC California Transportation Commission

CUD Contract Unit Description

DB Design Build
DBB Design Bid Build

Department of Transportation DOT Department of Water and Power **DWP Environmental Impact Report** EIR **Environmental Impact Statement** EIS **EMS Engineering Management Services** Earth Pressure Balance Machine **EPBM** FAA Federal Aviation Administration **FAR** Federal Acquisition Regulation

FD Final Design

FEIS Final Environmental Impact Statement FEIR Final Environmental Impact Report

FIS Financial Information System FLSR Fire Life Safety Report

FONSI Finding of No Significant Impact FRA Federal Railroad Administration

FSEIR Final Supplemental Environmental Impact Report FSEIS Final Supplemental Environmental Impact Statement

APPENDIX

LIST OF ACRONYMS (Continued)

FTA Federal Transit Administration

FTE Full Time Equivalent

GBR Geotechnical Baseline Report

GDSR Geotechnical Design Summary Report

HMM Hatch Mott MacDonald
HRT Heavy Rail Transit
HRV Heavy Rail Vehicle
IFB Invitation for Bid

IPMO Integrated Project Management Office

JV Joint-Venture LA Los Angeles

LABOE Los Angeles Bureau of Engineering
LABOS Los Angeles Bureau of Sanitation
LABSL Los Angeles Bureau of Street Lighting
LACFCD Los Angeles County Flood Control District

LACMTA Los Angeles County Metropolitan Transportation Authority

LADOT Los Angeles Department of Transportation
LADPW Los Angeles Department of Public Works
LADWP Los Angeles Department of Water and Power

LAUSD Los Angeles Unified School District

LAWA Los Angeles World Airports
LAX Los Angeles International Airport

LONP Limited Notice To Proceed LONP Letter Of No Prejudice

LOP Life-of-Project

LPA Locally Preferred Alternative
LRTP Long Range Transportation Plan

LRV Light Rail Vehicle

MCA Master Cooperative Agreement

MIS Major Investment Study

MMRP Mitigation Monitoring and Reporting Plan

MOU Memorandum of Understanding MPSR Monthly Project Status Report

N/A Not Applicable

NEPA National Environmental Protection Act

NOD Notice of Determination

NPDES National Pollution Discharge Elimination System

NTE Not to Exceed
NTP Notice To Proceed

OCC Operations Control Center

OSHA Occupational Health and Safety Administration

PA/VMS Public Address/Visual Messaging Sign

PE Preliminary Engineering

APPENDIX

LIST OF ACRONYMS (Continued)

PEER Permit Engineering Evaluation Report
PIP Project Implementation Plan
PLA Project Labor Agreement

PM Project Manager

PMIP Project Management Implementation Plan
PMOC Project Management Oversight Consultant

PMP Project Management Plan Policies & Procedures

PR Project Report

PRMMP Paleontological Resource Monitoring Mitigation Plan

PSR Project Study Report QA Quality Assurance

QAR Quality Assurance Report

QC Quality Control

QPSR Quarterly Project Status Report

QTIB Qualified Transit Improvement Bonds
RAMP Real Estate Acquisition Management Plan
RCHAR Rail Crossing Hazards Analysis Report
RCMP Risk Assessment Management Plan

RFC Request For Change RFP Request For Proposals

RFSC Request For Special Consideration

RHA Risk Hazard Analysis

RLPE Red Light Photo Enforcement

ROC Rail Operations Center ROD Record Of Decision

ROM Rough Order of Magnitude

ROW Right-Of-Way

RPZ Runway Protection Zone RSD Revenue Service Date SAV Stand Alone Validator

SBCC Steve Bubalo Construction Co

SCAQMD Southern California Air Quality Management District

SCADA Supervisory Control and Data Acquisition

SCC Standard Cost Category SCE Southern California Edison

SCG Southern California Gas Company

SCRRA Southern California Regional Rail Authority

SHA State Highway Account

SHPO State Historic Preservation Office

SIT System Integration Testing SOE Support of Excavation SOQ Statement of Qualification

SOV Schedule Of Value SOW Statement Of Work

Westside Purple Line Extension Section 1 Project
Monthly Project Status Report

January 2017

APPENDIX

LIST OF ACRONYMS (Continued)

SP Special Provision
SSMP Safety and Security Management Plan

STB Surface Transportation Board

STIP State Transportation Improvement Program

STP Surface Transportation Program

STV STV Group

SWPPP Storm Water Pollution Prevention Plan

TBD To Be Determined
TBM Tunnel Boring Machine

TCE Temporary Construction Easement TCRP Traffic Congestion Relief Program

TIFIA Transportation Infrastructure Finance and Innovation Act
TIGER Transportation Investment Generating Economic Recovery

TPSS Traction Power Substation

TRACS Transit Automatic Control System
TVA Threat Vulnerability Analysis
TVM Ticket Vending Machine
UFS Universal Fare System

USDOT United States Department Of Transportation

VE Value Engineering

WBS Work Breakdown Structure

WP Work Package YOE Year of Expenditure